

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
56 REFERENCES IN FILE CA (1962 TO DATE)  
56 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2003 ACS

RN 475-71-8 REGISTRY

CN Benzo[h]benz[5,6]acridino[2,1,9,8-klmna]acridine-8,16-dione (9CI) (CA  
INDEX NAME)

OTHER CA INDEX NAMES:

CN Flavanthrone (6CI, 7CI, 8CI)

OTHER NAMES:

CN C.I. 70600

CN C.I. Pigment Yellow 112

CN **C.I. Pigment Yellow 24**

CN C.I. Vat Yellow 1

CN Caledon Paper Yellow GN

CN Caledon Printing Yellow GN

CN Caledon Yellow GN

CN Carbanthrene Printing Yellow G

CN Carbanthrene Yellow G

CN Cibanone Yellow FGN

CN Cromophtal Yellow A 2R

CN Flavanthrene

CN Flavanthrone Yellow

CN Indanthren Yellow G

CN Indanthren Yellow GLP

CN Indanthrene Yellow G

CN Indo Yellow Y 35

CN Indofast Yellow

CN Indofast Yellow Toner

CN Mikethrene Yellow G

CN Monolite Fast Yellow FR

CN Monolite Fast Yellow FRS

CN Monolite Yellow FR

CN Palanthrene Yellow G

CN Paliogen Yellow 1870

CN Paliogen Yellow L 1870

CN Paradone Yellow G New

CN Pigment Yellow 24

CN Ponsol Yellow G

CN Ponsol Yellow GD

CN Romanthrene Yellow FG

CN Sandothrene NGN

CN Sandothrene Yellow GN

CN Sandothrene Yellow NG

CN Solanthrene Yellow J

CN Tinon Yellow GN

CN Tyrian Yellow I-G

CN Vat Yellow 1

FS 3D CONCORD

DR 82601-32-9, 52907-35-4

MF C28 H12 N2 O2

CI COM

LC STN Files: AGRICOLA, BEILSTEIN\*, CA, CAOLD, CAPLUS, CHEMCATS, CHEMLIST,  
CIN, CSCHEM, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, SPECINFO, TOXCENTER,  
USPATFULL

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

E9 1 C.I. 77330/CN  
E10 1 C.I. 77332/CN  
E11 1 C.I. 77335/CN  
E12 1 C.I. 77339/CN

=> s e3

L8 1 "C.I. 77310"/CN

=> d

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS  
RN 68186-90-3 REGISTRY  
CN C.I. Pigment Brown 24 (9CI) (CA INDEX NAME)  
OTHER NAMES:

CN **C.I. 77310**  
CN Chrome antimony titanate buff  
CN Chrome antimony titanium buff rutile  
CN Chrome titanium yellow  
CN Daipyroxide Yellow 9150  
CN Daipyroxide Yellow 9151  
CN Ferro Bright Golden Yellow V 9140  
CN Honey Yellow 29  
CN Irgacolor Yellow 10408  
CN Light Yellow 3R  
CN Light Yellow 5R  
CN Light Yellow 62R  
CN Light Yellow 6R  
CN Meteor Yellow Buff  
CN Pigment Brown 24  
CN Sicotan Yellow K 2011  
CN Sicotan Yellow K 2111  
CN Sicotan Yellow K 2112  
CN Sicotan Yellow L 1910  
CN Sicotan Yellow L 1912

DEF An inorganic pigment that is the reaction product of high temperature calcination in which titanium (IV) oxide, chromium (III) oxide and antimony oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of rutile. Its composition

may include any one or a combination of the modifiers Al2O3, MnO, NiO, WO3,

or

ZnO. This substance is identified in the COLOUR INDEX by Colour Index Constitution Number, C.I. 77310.

DR 68859-62-1, 72779-94-3, 72779-95-4, 146908-55-6, 179606-69-0

MF Unspecified

CI MAN

LC STN Files: CA, CAPLUS, CHEMLIST, CIN, MEDLINE, MSDS-OHS, NIOSHTIC, PROMT, TOXCENTER, ULIDAT, USPATFULL

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

43 REFERENCES IN FILE CA (1962 TO DATE)

43 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=> d hist

(FILE 'HOME' ENTERED AT 15:26:21 ON 31 MAR 2003)

FILE 'REGISTRY' ENTERED AT 15:26:32 ON 31 MAR 2003

E C.I.PIGMENT YELLOW 24/CN

E C.I. PIGMENT YELLOW 24/CN

hist

(FILE 'HOME' ENTERED AT 15:26:21 ON 31 MAR 2003)

FILE 'REGISTRY' ENTERED AT 15:26:32 ON 31 MAR 2003

E C.I. PIGMENT YELLOW 24/CN  
E C.I. PIGMENT YELLOW 24/CN  
E C.I. PIGMENT YELLOW AND (24 OR 53 OR 164)  
E C.I. PIGMENT YELLOW AND (24 OR 53 OR 164)/CN  
E C.I. PIGMENT YELLOW 24/CN OR C.I. PIGMENT YELLOW 53/CN OR

C.I

E C.I. PIGMENT YELLOW 24/CN

L1

1 S E3

E C.I. PIGMENT YELLOW 53/CN

L2

1 S E3

E C.I. PIGMENT YELLOW 164/CN

L3

1 S E3

L4

3 S L1 OR L2 OR L3

FILE 'CAPLUS' ENTERED AT 15:32:05 ON 31 MAR 2003

L5

21 S L4 AND CELLULOSE

L6

3 S L4 AND LYOCCELL

L7

1 S L4 AND AMINE OXIDE

FILE 'REGISTRY' ENTERED AT 15:36:23 ON 31 MAR 2003

FILE 'CAPLUS' ENTERED AT 15:36:24 ON 31 MAR 2003

FILE 'REGISTRY' ENTERED AT 15:39:04 ON 31 MAR 2003

E C.I. 77310/CN

L8

1 S E3

L9

3 S L2 OR L3 OR L8

FILE 'CAPLUS' ENTERED AT 15:40:56 ON 31 MAR 2003

L10

1 S L9 AND CELLULOSE

L11

0 S L9 AND LYOCCELL

L12

3 S L9 AND (RAYON OR PAPER OR COTTON)

L13

0 S LYOCCELL AND PIGMENT#

WEST

☐ Generate Collection

Print

L1: Entry 6 of 22

File: USPT

Nov 21, 2000

DOCUMENT-IDENTIFIER: US 6149747 A

TITLE: Ceramic marking system with decals and thermal transfer ribbon

Detailed Description Text (4):

The ceramic pigments can be classified generally as transition metal oxides and alkali metal oxides. The most common are characterized as the Spinelles type and the zircon-silicate type pigments. These transition metal oxides and alkali metal oxides must often be used in mixtures with other elements to generate color and vary the color. These are referred to as spectral elements in U.S. Pat. No. 5,340,387 and chromophores in U.S. Pat. No. 3,589,925. The ceramic pigments are used in mixtures to obtain variations in color. Fluxes can also alter color. The number and identity of ceramic pigments varies widely as shown by Smith in U.S. Pat. No. 5,340,387, wherein specific commercial pigments are identified at column 4, lines 15 to 63, and claim 1 therein ranging from phthalocyanine blue to chromophthal scarlet R. Others are identified in Ullman's Encyclopedia of Technical Chemistry 1972, col. 14, page 1 and U.S. Pat. No. 4,927,671 issued to Nawothing.

Detailed Description Text (5):

Other specific examples of ceramic pigments include: the spinelles pigments based on zinc-chromite disclosed in U.S. Pat. No. 5,254,162 issued to Speer et al., the cadmium red-based decorating enamels disclosed in U.S. Pat. No. 4,264,679 issued to Panzarino, the iron-containing zircon-based pigments disclosed in U.S. Pat. No. 3,166,430, issued to Seabright, the zircon pigments disclosed in 3,528,835 issued to Gascon, the vanadium-zirconium based pigments with indium or yttrium oxide disclosed in U.S. Pat. No. 2,875,086, issued to Weyl, the zirconium based stains disclosed in U.S. Pat. No. 4,047,970, issued to Morriss et al., the black cobalt-based pigments disclosed in U.S. Pat. No. 4,205,996, issued to Eppler, the cobalt and aluminum-based pigments disclosed in U.S. Pat. No. 2,644,767, issued to Duncan, the glass stable zirconium-based ceramic pigments disclosed in U.S. Pat. No. 3,847,639, issued to Broll et al., the zirconium-based ceramic pigments disclosed in U.S. Pat. No. 3,589,925 and U.S. Pat. No. 3,573,080 issued to Bell, the grey ceramic pigments based on zircon and disclosed in U.S. Pat. No. 4,486,236 issued to Olby, the spinelles disclosed by Speer et al. in U.S. Pat. No. 5,194,089 at column 2, and the yellow zirconium/praseodymium based pigment disclosed by Seabright.

## CLAIMS:

8. A process as in claim 1 wherein the ceramic pigment in the image layer comprises a transition metal oxide selected from the group consisting of spinelles and zircon-silicates.

15. A process as in claim 10 wherein the ceramic pigment in the image layer comprises a transition metal oxide selected from the group consisting of spinelles and zircon-silicates.

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS  
RN 68186-90-3 REGISTRY  
CN C.I. Pigment Brown 24 (9CI) (CA INDEX NAME)

OTHER NAMES:

CN **C.I. 77310**  
CN Chrome antimony titanate buff  
CN ~~Chrome antimony titanium buff rutile~~  
CN Chrome titanium yellow  
CN Daipyroxide Yellow 9150  
CN Daipyroxide Yellow 9151  
CN Ferro Bright Golden Yellow V 9140  
CN Honey Yellow 29  
CN Irgacolor Yellow 10408  
CN Light Yellow 3R  
CN Light Yellow 5R  
CN Light Yellow 62R  
CN Light Yellow 6R  
CN Meteor Yellow Buff  
CN Pigment Brown 24  
CN Sicotan Yellow K 2011  
CN Sicotan Yellow K 2111  
CN Sicotan Yellow K 2112  
CN Sicotan Yellow L 1910  
CN Sicotan Yellow L 1912

DEF An inorganic pigment that is the reaction product of high temperature calcination in which titanium (IV) oxide, chromium (III) oxide and antimony oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of rutile. Its composition

may include any one or a combination of the modifiers Al<sub>2</sub>O<sub>3</sub>, MnO, NiO, WO<sub>3</sub>,  
or

ZnO. This substance is identified in the COLOUR INDEX by Colour Index Constitution Number, C.I. 77310.

DR 68859-62-1, 72779-94-3, 72779-95-4, 146908-55-6, 179606-69-0

MF Unspecified

CI MAN

LC STN Files: CA, CAPLUS, CHEMLIST, CIN, MEDLINE, MSDS-OHS, NIOSHTIC, PROMT, TOXCENTER, ULIDAT, USPATFULL

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

43 REFERENCES IN FILE CA (1962 TO DATE)

43 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2003 ACS

RN 68412-38-4 REGISTRY

CN **C.I. Pigment Yellow 164 (9CI)** (CA INDEX NAME)

OTHER NAMES:

CN C.I. 77899

CN Cerdec Brown 10364

CN Ferro Brown PK 6086

CN Igacolor Brown 10364

CN Manganese antimony titanium buff rutile

CN Pigment Yellow 164

CN Sicotan Brown K 2711

DEF An inorganic pigment that is the reaction product of high temperature calcination in which antimony oxide, manganese (II) oxide, and titanium (IV) oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of rutile. Its composition

may include any one or a combination of the modifiers Al<sub>2</sub>O<sub>3</sub>, Cr<sub>2</sub>O<sub>3</sub>, WO<sub>3</sub>, or ZnO. This substance is identified in the COLOUR INDEX by Colour Index Constitution Number, C.I. 77899.

MF Unspecified

CI MAN

LC STN Files: CA, CAPLUS, CHEMLIST, MSDS-OHS, TOXCENTER, ULIDAT, USPATFULL

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

7 REFERENCES IN FILE CA (1962 TO DATE)

7 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2003 ACS

RN 8007-18-9 REGISTRY

CN **C.I. Pigment Yellow 53 (8CI, 9CI)** (CA INDEX NAME)

OTHER NAMES:

CN Antimony nickel titanium oxide yellow

CN C.I. 77788

CN Cerdec Yellow 10401

CN Daipyroxide Yellow 9121

CN Ferro Yellow V 9400

CN Irgacolor Yellow 10401

CN Levanox Light Yellow 100A

CN Light Yellow 7G

CN Light Yellow 8G

CN Nickel antimony titanate yellow

CN Nickel antimony titanium yellow rutile

CN Nickel Titanate Yellow V 9400

CN NV 9112S

CN Pigment Yellow 53

CN Sicotan Yellow K 1011

CN Titanate Yellow

DEF This substance is identified in the COLOUR INDEX by Colour Index Constitution Number, C.I. 77788.

DR 12227-91-7, 71077-18-4, 90552-50-4

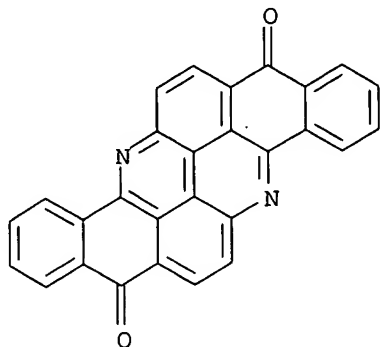
MF Unspecified

CI MAN

LC STN Files: CA, CAPLUS, CHEMLIST, CIN, MEDLINE, MSDS-OHS, NIOSHTIC, PROMT, TOXCENTER, ULIDAT, USPATFULL

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

242 REFERENCES IN FILE CA (1962 TO DATE)  
 19 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 242 REFERENCES IN FILE CAPLUS (1962 TO DATE)  
 34 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	1.67	42.55
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.95

FILE 'REGISTRY' ENTERED AT 15:39:04 ON 31 MAR 2003  
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 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 30 MAR 2003 HIGHEST RN 500991-80-0  
 DICTIONARY FILE UPDATES: 30 MAR 2003 HIGHEST RN 500991-80-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> e c.i. 77310/cn

E1	1	C.I. 77302/CN
E2	1	C.I. 77305/CN
E3	1 -->	C.I. 77310/CN
E4	1	C.I. 77312/CN
E5	1	C.I. 77320/CN
E6	1	C.I. 77322/CN
E7	1	C.I. 77323/CN
E8	1	C.I. 77326/CN

E C.I. PIGMENT YELLOW AND (24 OR 53 OR 164)  
 E C.I. PIGMENT YELLOW AND (24 OR 53 OR 164)/CN  
 E C.I. PIGMENT YELLOW 24/CN OR C.I. PIGMENT YELLOW 53/CN OR

C.I.

E C.I. PIGMENT YELLOW 24/CN

L1 1 S E3  
 E C.I. PIGMENT YELLOW 53/CN

L2 1 S E3  
 E C.I. PIGMENT YELLOW 164/CN

L3 1 S E3

L4 3 S L1 OR L2 OR L3

FILE 'CAPLUS' ENTERED AT 15:32:05 ON 31 MAR 2003

L5 21 S L4 AND CELLULOSE

L6 3 S L4 AND LYOCCELL

L7 1 S L4 AND AMINE OXIDE

FILE 'REGISTRY' ENTERED AT 15:36:23 ON 31 MAR 2003

FILE 'CAPLUS' ENTERED AT 15:36:24 ON 31 MAR 2003

FILE 'REGISTRY' ENTERED AT 15:39:04 ON 31 MAR 2003

E C.I. 77310/CN

L8 1 S E3

=> s 12 or 13 or 18

L9 3 L2 OR L3 OR L8

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	7.10	49.65
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.95

FILE 'CAPLUS' ENTERED AT 15:40:56 ON 31 MAR 2003  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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FILE COVERS 1907 - 31 Mar 2003 VOL 138 ISS 14  
 FILE LAST UPDATED: 30 Mar 2003 (20030330/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 19 and cellulose

92 L9  
 300810 CELLULOSE



L10 1 L9 AND CELLULOSE

=> s 19 and lyocell

92 L9  
495 LYOCELL  
L11 0 L9 AND LYOCELL

=> s 19 and (rayon or paper or cotton)

92 L9  
33866 RAYON  
549886 PAPER  
101483 COTTON  
L12 3 L9 AND (RAYON OR PAPER OR COTTON)

=> d 1-3 all

L12 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS  
AN 2001:115354 CAPLUS  
DN 134:179874  
TI Colored cellulosic shaped bodies  
IN Ruf, Hartmut  
PA Lenzing Aktiengesellschaft, Austria  
SO PCT Int. Appl., 18 pp.  
CODEN: PIXXD2  
DT Patent  
LA German  
IC ICM D01F002-00  
ICS D01F001-04; C08J005-18; C08L001-02; C08K003-00; C08L001-02  
CC 40-6 (Textiles and Fibers)  
Section cross-reference(s): 37

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001011121	A1	20010215	WO 2000-AT216	20000808
	W:				
	AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AT 9901376	A	20001215	AT 1999-1376	19990810
	BR 2000013144	A	20020430	BR 2000-13144	20000808
	EP 1214463	A1	20020619	EP 2000-951090	20000808
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
	NO 2002000655	A	20020208	NO 2002-655	20020208
	US 2002189035	A1	20021219	US 2002-71723	20020208
PRAI	AT 1999-1376	A	19990810		
	WO 2000-AT216	W	20000808		
AB	The invention relates to novel colored cellulosic shaped bodies, esp. fibers or films, that comprise a colorant that contains heavy metals and which decreases the increase in temp. of a soln. of cellulose in a tertiary amine oxide due to the exothermicity of the dissoln. to .ltoreq.10.degree. as detd. by the Sikarex thermostability test, so as to prevent degrdn. of the products.				
ST	<b>rayon</b> bulk coloring heavy metal pigment; degrdn prevention coloring regenerated cellulose; cellophane coloring heavy metal pigment				
IT	Cellophane Coloring Pigments, nonbiological				

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
56 REFERENCES IN FILE CA (1962 TO DATE)  
56 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2003 ACS

RN 475-71-8 REGISTRY

CN Benzo[h]benz[5,6]acridino[2,1,9,8-klmna]acridine-8,16-dione (9CI) (CA  
INDEX NAME)

OTHER CA INDEX NAMES:

CN Flavanthrone (6CI, 7CI, 8CI)

OTHER NAMES:

CN C.I. 70600

CN C.I. Pigment Yellow 112

CN **C.I. Pigment Yellow 24**

CN C.I. Vat Yellow 1

CN Caledon Paper Yellow GN

CN Caledon Printing Yellow GN

CN Caledon Yellow GN

CN Carbanthrene Printing Yellow G

CN Carbanthrene Yellow G

CN Cibanone Yellow FGN

CN Cromophtal Yellow A 2R

CN Flavanthrene

CN Flavanthrone Yellow

CN Indanthren Yellow G

CN Indanthren Yellow GLP

CN Indanthrene Yellow G

CN Indo Yellow Y 35

CN Indofast Yellow

CN Indofast Yellow Toner

CN Mikethrene Yellow G

CN Monolite Fast Yellow FR

CN Monolite Fast Yellow FRS

CN Monolite Yellow FR

CN Palanthrene Yellow G

CN Paliogen Yellow 1870

CN Paliogen Yellow L 1870

CN Paradone Yellow G New

CN Pigment Yellow 24

CN Ponsol Yellow G

CN Ponsol Yellow GD

CN Romanthrene Yellow FG

CN Sandothrene NGN

CN Sandothrene Yellow GN

CN Sandothrene Yellow NG

CN Solanthrene Yellow J

CN Tinon Yellow GN

CN Tyrian Yellow I-G

CN Vat Yellow 1

FS 3D CONCORD

DR 82601-32-9, 52907-35-4

MF C28 H12 N2 O2

CI COM

LC STN Files: AGRICOLA, BEILSTEIN\*, CA, CAOLD, CAPLUS, CHEMCATS, CHEMLIST,  
CIN, CSCHEM, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, SPECINFO, TOXCENTER,  
USPATFULL

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

L4 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2003 ACS  
RN 68412-38-4 REGISTRY  
CN C.I. Pigment Yellow 164 (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN C.I. 77899  
CN Cerdec Brown 10364  
CN Ferro Brown PK 6086  
CN Igacolor Brown 10364  
CN Manganese antimony titanium buff rutile  
CN Pigment Yellow 164  
CN Sicotan Brown K 2711  
DEF An inorganic pigment that is the reaction product of high temperature calcination in which antimony oxide, manganese (II) oxide, and titanium (IV) oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of rutile. Its composition may include any one or a combination of the modifiers Al2O3, Cr2O3, WO3, or ZnO. This substance is identified in the COLOUR INDEX by Colour Index Constitution Number, C.I. 77899.  
MF Unspecified  
CI MAN  
LC STN Files: CA, CAPLUS, CHEMLIST, MSDS-OHS, TOXCENTER, ULIDAT, USPATFULL  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
7 REFERENCES IN FILE CA (1962 TO DATE)  
7 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2003 ACS  
RN 8007-18-9 REGISTRY  
CN C.I. Pigment Yellow 53 (8CI, 9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Antimony nickel titanium oxide yellow  
CN C.I. 77788  
CN Cerdec Yellow 10401  
CN Daipyroxide Yellow 9121  
CN Ferro Yellow V 9400  
CN Irgacolor Yellow 10401  
CN Levanox Light Yellow 100A  
CN Light Yellow 7G  
CN Light Yellow 8G  
CN Nickel antimony titanate yellow  
CN Nickel antimony titanium yellow rutile  
CN Nickel Titanate Yellow V 9400  
CN NV 9112S  
CN Pigment Yellow 53  
CN Sicotan Yellow K 1011  
CN Titanate Yellow  
DEF This substance is identified in the COLOUR INDEX by Colour Index Constitution Number, C.I. 77788.  
DR 12227-91-7, 71077-18-4, 90552-50-4  
MF Unspecified  
CI MAN  
LC STN Files: CA, CAPLUS, CHEMLIST, CIN, MEDLINE, MSDS-OHS, NIOSHTIC, PROMT, TOXCENTER, ULIDAT, USPATFULL  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

d

L14 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS

RN 1345-16-0 REGISTRY

CN C.I. Pigment Blue 28 (9CI) (CA INDEX NAME)

OTHER NAMES:

CN **C.I. 77346**

CN Cerdec Blue 10336

CN Cobalt aluminate blue spinel

CN Cobalt blue

CN Cobalt Blue 204

CN Cobalt Blue 37S

CN Cobalt Blue 660

CN Cobalt Blue C

CN Cobalt Blue Medium

CN Daipyroxide Blue 9410

CN Daipyroxide Blue 9450

CN Daipyroxide Blue 9452

CN Daipyroxide Blue 9453

CN Drakenfeld 10336 Blue

CN Ferro 42-250A

CN Ferro Blue 42-250A

CN Ferro Blue NF 250P

CN Ferro Blue PK 5091

CN Ferro Dark Red Blue

CN Ferro Light Blue

CN Ferro Medium Red Blue

CN Ferro V 3285

CN Igacolor Blue 10336

CN King's Blue

CN Leyden Blue

CN Matt Blue

CN NF 6279

CN Pigment Blue 28

CN Pigment Cobalt Blue

CN Shepherd Blue 214

CN Sicopal Blue K 6310

CN Thenard's blue

DEF An inorganic pigment that is the reaction product of high temperature calcination in which cobalt (II) oxide and aluminum oxide in varying amounts are homogeneously and ionically interdiffused to form a crystalline matrix of spinel. Its composition may include any one or a combination of the modifiers MgO, ZnO, Li<sub>2</sub>O, or TiO<sub>2</sub>.

DR 68186-86-7, 160936-12-9

MF Unspecified

CI COM, MAN

LC STN Files: BIOBUSINESS, BIOSIS, CA, CAPLUS, CHEMCATS, CHEMLIST, CIN, CSCHM, CSNB, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, NIOSHTIC, PIRA, TOXCENTER, ULIDAT, USPAT2, USPATFULL

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

311 REFERENCES IN FILE CA (1962 TO DATE)

311 REFERENCES IN FILE CAPLUS (1962 TO DATE)

(coloring of regenerated cellulose fibers and films with heavy metal-contg. pigments that prevent thermal degrdn.)

IT **Rayon**, processes  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (coloring of regenerated cellulose fibers and films with heavy metal-contg. pigments that prevent thermal degrdn.)

IT Heavy metals  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (oxide pigments contg.; coloring of regenerated cellulose fibers and films with heavy metal-contg. pigments that prevent thermal degrdn.)

IT 1345-16-0, C.I. Pigment Blue 28  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (Sicopal Blue K 6310; coloring of regenerated cellulose fibers and films with heavy metal-contg. pigments that prevent thermal degrdn.)

IT **68412-38-4**, C.I. Pigment Yellow 164  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (Sicotan Brown K 2711; coloring of regenerated cellulose fibers and films with heavy metal-contg. pigments that prevent thermal degrdn.)

IT **68186-90-3**, C.I. Pigment Brown 24  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (Sicotan Yellow K 2011; coloring of regenerated cellulose fibers and films with heavy metal-contg. pigments that prevent thermal degrdn.)

IT **8007-18-9**, Sicotan Yellow K 1011  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (coloring of regenerated cellulose fibers and films with heavy metal-contg. pigments that prevent thermal degrdn.)

IT 12068-51-8, Aluminum magnesium oxide (MgAl<sub>2</sub>O<sub>4</sub>) 13463-67-7, Titania,  
 uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (heavy metal-doped; coloring of regenerated cellulose fibers and films with heavy metal-contg. pigments that prevent thermal degrdn.)

IT 7439-96-5, Manganese, uses 7440-02-0, Nickel, uses 7440-36-0, Antimony, uses 7440-47-3, Chromium, uses 7440-48-4, Cobalt, uses  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (oxide pigments contg.; coloring of regenerated cellulose fibers and films with heavy metal-contg. pigments that prevent thermal degrdn.)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE

- (1) Akzo Nobel Nv; WO 9627638 A 1996 CAPLUS
- (2) Chemiefaser Lenzing Ag; WO 9627035 A 1996 CAPLUS
- (3) Ruef Hartmut; WO 9858015 A 1998 CAPLUS

L12 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS  
 AN 1995:283251 CAPLUS  
 DN 122:33612  
 TI Color-transforming art medium compositions  
 IN Smith, Donald A.  
 PA USA  
 SO U.S., 6 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM C09D011-02  
 NCL 106-20A  
 CC 42-6 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 57

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5340387	A	19940823	US 1992-840794	19920224
PRAI	US 1992-840794		19920224		
AB	Color-transforming art medium compns. are disclosed herein useful in fine art to produce color changes after heating and in industrial fields as to indicate painted substrates becoming too hot. Spectrally transforming				
ink	and paint compns. comprising one or more spectral elements mixed in a 3%				

to 50% ratio by vol. with a pigmented ink or paint art vehicle. The spectral elements comprising various types of ceramic colorant agents. The art medium compn. produced is then applied to the surface of a suitable substrate, such as metal, glass or **paper**. The substrate and compn. is then heated or fired at a relatively high temp. during which the substrate and ink or paint compn. undergo partial or complete oxidn. A typical medium contained 3 parts Fe oxide red and 4 parts C.I. Pigment Blue 15-contg. lithog. ink.

ST thermal color transforming art media; heat indicator color transforming media; ink art thermal color transforming; paint art thermal color transforming; iron oxide red contg color media; ceramic pigment contg color transforming media

IT Thermochromic substances  
(thermal color-transforming fine and industrial inks and paints)

IT Carbon black, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(thermal color-transforming fine and industrial inks and paints)

IT Charcoal  
RL: TEM (Technical or engineered material use); USES (Uses)  
(bone, ivory black; thermal color-transforming fine and industrial inks and paints)

IT Inks  
(lithog., thermal color-transforming fine and industrial inks and paints)

IT Coating materials  
(paints, thermal color-transforming fine and industrial inks and paints)

IT 104074-25-1, C.I. Pigment Red 83  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Alizarin Crimson; thermal color-transforming fine and industrial inks and paints)

IT 13515-40-7, C.I. Pigment Yellow 73  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Arylide Yellow GX; thermal color-transforming fine and industrial inks and paints)

IT 79953-85-8, C.I. Pigment Yellow 128  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Chromophthal Yellow 8GN; thermal color-transforming fine and industrial inks and paints)

IT 5280-78-4, C.I. Pigment Red 144  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Chromophthal Red BRN; thermal color-transforming fine and industrial inks and paints)

IT 68808-69-5, C.I. Pigment Orange 66  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Irgazin Orange; thermal color-transforming fine and industrial inks and paints)

IT 68186-85-6, C.I. Pigment Green 50  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Light Green Oxide; thermal color-transforming fine and industrial inks and paints)

IT 6471-51-8, C.I. Pigment Red 7  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Permanent Crimson; thermal color-transforming fine and industrial inks and paints)

IT 3573-01-1, C.I. Pigment Red 209 71819-77-7, C.I. Pigment Red 207  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Quinacridone red; thermal color-transforming fine and industrial inks and paints)

IT 81-77-6, C.I. Pigment Blue 60 147-14-8, C.I. Pigment Blue 15  
471-34-1,

C.I. Pigment White 18, uses 475-71-8, Flavanthrone yellow 1047-16-1, C.I. Pigment Violet 19 1303-86-2, Boric oxide, uses 1304-28-5, Barium oxide, uses 1304-76-3, Bismuth oxide (Bi2O3), uses 1305-78-8, Calcium oxide, uses 1306-19-0, Cadmium oxide, uses 1308-38-9, Chromium oxide (Cr2O3), uses 1309-37-1, Iron oxide red, uses 1309-48-4, Magnesium oxide (MgO), uses 1313-59-3, Sodium oxide, uses 1313-99-1, Nickel oxide, uses 1314-11-0, Strontium oxide, uses 1314-13-2, Zinc oxide, uses 1314-23-4, Zirconium oxide, uses 1317-80-2, Rutile 1319-46-6, C.I. Pigment White 1 1328-53-6, C.I. Pigment Green 7 1332-29-2, Tin oxide 1332-73-6, C.I. Pigment White 24 1335-25-7, Lead oxide 1344-28-1, Aluminum oxide, uses 1344-37-2, C.I. Pigment Yellow 34 1344-48-5, C.I. Pigment Red 106 1344-70-3, Copper oxide 1344-98-5, Terre verte 1345-05-7, Lithopone 1345-16-0, Cobalt blue 1345-27-3, C.I. Pigment Brown 7 2425-85-6, C.I. Pigment Red 3 2512-29-0, Arylide Yellow G 3905-19-9, C.I. Pigment Red 166 4051-63-2, C.I. Pigment Red 177 4378-61-4, C.I. Pigment Red 168 4424-06-0, Perinone orange 5045-40-9, Isoindolinone yellow 5590-18-1, C.I. Pigment Yellow 110 6358-30-1, Dioxazine violet 6410-38-4, C.I. Pigment Red 9 6424-77-7, C.I. Pigment Red 190 6486-23-3, C.I. Pigment Yellow 3 6535-46-2, C.I. Pigment Red 112 7440-36-0, Antimony, uses 7492-68-4, Copper carbonate 7631-86-9, Silicon oxide, uses 7727-43-7, C.I. Pigment White 21 8007-18-9, C.I. Pigment Yellow 53 8011-87-8, Cobalt green 8012-00-8, Naples Yellow 8046-59-1, Manganese blue 10101-56-1, C.I. Pigment Violet 14 10101-66-3, C.I. Pigment Violet 16 10294-40-3, C.I. Pigment Yellow 31 11099-11-9, Vanadium oxide 11104-61-3, Cobalt oxide 11118-57-3, Chromium oxide 11129-18-3, Cerium oxide 11129-60-5, Manganese oxide 12001-99-9, Viridian 12136-45-7, Potassium oxide, uses 12227-89-3, C.I. Pigment Black 11 12240-15-2, Prussian blue 12626-36-7, Cadmium selenide sulfide (Cd(Se,S)) 12640-86-7, Phosphorus oxide 12645-46-4, Iridium oxide 12769-96-9, Ultramarine violet 13463-67-7, Titanium oxide (TiO2), uses 13782-01-9, C.I. Pigment Yellow 40 20667-12-3, Silver oxide 37300-23-5, Zinc Yellow 51931-46-5, Nickel azo yellow 57455-37-5, Ultramarine blue 58339-34-7, Cadmium red 64294-91-3, C.I. Pigment Yellow 43 68859-25-6, C.I. Pigment Yellow 37 83712-59-8, Cerulean blue 91315-44-5, C.I. Pigment White 4

RL: TEM (Technical or engineered material use); USES (Uses)  
(thermal color-transforming fine and industrial inks and paints)

L12 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS

AN 1983:523772 CAPLUS

DN 99:123772

TI Suede leather substitutes

PA Kyowa Leather Cloth Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC D06N003-00

ICA B32B005-24

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58041974	A2	19830311	JP 1981-136284	19810831
	JP 01052513	B4	19891109		
PRAI	JP 1981-136284		19810831		

AB A suede leather substitute, with a decorative pattern resistant to scratches and friction, is prepd. by (1) printing a substrate with 1 or .gtoreq.2 different color-tone foamable colored coating materials) in a pattern, (2) coating with a foamable resin, with different color tone

from that in 1, (3) foaming 1 and 2 coatings simultaneously by heating, and  
(4)

grinding the surface. Thus, a mixt. of PVC (I) [9002-86-2] (for paste) 100, dioctyl phthalate (II) 60, chlorinated paraffin 8, stabilizer 3, blowing agent AZ-H (III) 5, filler 30, and Sb2O3 5 parts, contg. TiO2 9, iron oxide brown 0.5, and carbon black 0.1 part was screen printed on a

80

g/m2 **paper** to 200 .mu. and gelled by heating. The mixt. contg. 10 parts TiO2 was coated (as process 2) on the printed **paper** to 200 .mu., gelled, and heated to foam and give a 1.2-mm-thick coating, of which surface was ground to give a 1-mm-thick suede-leather substitute. leather suede substitute; PVC cellular coating **paper**;

ST

**paper** leather substitute

IT

Carbon black, uses and miscellaneous

RL: USES (Uses)

(PVC coatings, contg., in suedelike leather substitutes, with patterns resistant to scratches and friction)

IT

Coating materials

(PVC, for suede leather substitutes)

IT

Leather substitutes

(suede, PVC cellular coatings for, with scratch- and

friction-resistant

patterns)

IT

**8007-18-9**

RL: USES (Uses)

(PVC coatings contg., in suedelike leather substitutes, with patterns resistance to scratch and friction)

IT

9002-86-2

RL: USES (Uses)

(coatings, cellular, in seudelike leather substitutes with patterns with scratch and friction resistance)

IT

13463-67-7, uses and miscellaneous

RL: USES (Uses)

(pigments, PVC coatings contg., in suedelike leather substitutes, with patterns resistance to scratches and friction)

IT

1332-37-2, uses and miscellaneous

RL: USES (Uses)

(white pigments, PVC coatings contg., in suedelike leather

substitutes,

with patterns resistance to scratch and friction)